

REMARKS

Claims Rejections under 35 USC § 112 1st paragraph

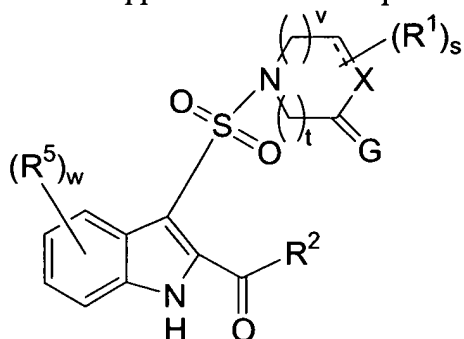
Written Description

The Examiner rejects claims 1-4 and 7 under 35 USC § 112 1st paragraph as failing to comply with the written description requirement. The Examiner contends that the species are not representative of the broad genus claimed. In particular, the Examiner states that under R⁵, when R⁶ is alkyl substituted with R⁷, the examples of phenyl and pyridinyl are not representative of the genus of aryl or heterocycle for R⁷.

A claim to a genus may be sufficiently described without describing all species that the claim encompasses. See *Utter v. Hiraga*, 845 F. 2d 993, 998-99 (Fed. Cir. 1988). In *University of California*, the court ruled that a description of a genus may be achieved by means of a recitation of representative number of species or a recitation of structural features common to the members of the genus, which features constitute a substantial portion of the genus. See *University of California*, 119 F. 3d at 1569.

Applicants also direct the Examiner to the March 25, 2008 Written Description Training Materials issued by the U.S. Patent Office. See Example 11, where an isolated nucleic acid that encodes a polypeptide with at least 85 % amino acid sequence identity to SEQ ID No:2 is found to satisfy the written description requirement.

Applicants claim compounds under Formula II.



II

Formula II describes a core structural feature common to all members of the genus. The core structural feature contributes to a **substantial portion of the genus of molecules in three-dimensional space or molecular weight**. Therefore, claim 2 satisfies the written description requirement. The fact that applicants have only shown phenyl and pyridinyl under R⁷ for R⁶, a peripheral substituent off of the core structure, does not affect the substantial portion of the genus represented by Formula II.

In view of the above arguments, applicants request withdrawal of the rejection under 35 USC § 112 1st paragraph.

Enablement

The Examiner contends that claims 1-4 and 7 lack enablement. The Examiner contends that the specification is not enabling for the use of the compounds, and pharmaceutical compositions thereof, that are not supported by the disclosure. The Examiner cites Valaperthi to show that modest changes effect noticeable changes to activity.

Applicants respectfully submit that the Examiner has not set forth any objective evidence in support of the rejection. Velaparthi describes a class of benzoimidazol-pyridinone tyrosine kinase inhibitors with a completely different core structure, which would have a different mode of binding to the insulin-like growth factor, and thus a different structure-activity profile. Although, the R substituent off of the benzoimidazol or pyridinone core-structure affects activity more than 10-fold, the Examiner has not provided objective evidence that the claimed substituents off of an indole core structure as shown in formula II would have no IGF-1R activity. The exemplified compounds in the application all have IGF-1R activity.

Applicants submit that the application need not provide thousands of examples for the claimed invention. *In re Angstadt*, 190 U.S.P.Q. 214, 218 (C.C.P.A 1976). Further, a claim is allowed to have a low number of inoperative embodiments as long as those skilled in the art would know how to modify the failures to secure something useful. *Atlas Powder Co. v. E.I. Dupont* 224 USPQ 409 (Fed Cir 1984).


As discussed before, applicants teach how to test the IGF-1R activity of the exemplified compounds. Correlating structure and activity through tabulating compounds by different class and types of substituents and comparing activity level are within ordinary skill in the art. See Exhibit 1 in January 15, 2008 response. This testing and deduction of the correlation involves some experimentation but it is not undue. A considerable amount of experimentation is permissible, if it is merely routine, or if the specification provides reasonable guidance with respect to the direction in which the experimentation should proceed to enable the determination of how to practice a desired embodiment of the invention. *Forman, supra*, 230 U.S.P.Q. at 547. Thus, based on applicant's disclosure and available knowledge, one of ordinary skill could readily determine which structural limitations are required for preservation of activity, and thus use the claimed invention.

Further, applicants teach how to make the exemplified compounds in examples 1-111. One of ordinary skill in the art can readily synthesize the claimed compounds according to synthetic schemes 1-15. Therefore, applicants provide guidance on how to make the claimed compounds.

In view of the above amendments, applicants request withdrawal of the rejection under 35 USC § 112 1st paragraph.

If a telephonic communication with Applicant's representative will aid in the advancement of the prosecution of this application, please telephone the representative indicated below.

Respectfully submitted,

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Date: July 11, 2008